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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,020	07/11/2003	Toshio Masuda	520.34403C10	2702

20457 7590 06/16/2005

ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-3873

EXAMINER

ZERVIGON, RUDY

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/617,020

Applicant(s)

MASUDA ET AL

Examiner

Rudy Zervigon

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 08/611,758.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/11/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “monitor unit”, “monitor temperature input unit”, “temperature setting unit”, “cleaning unit”, “plasma process interruption unit”, “alarm unit”, “monitor temperature inputting unit”, “plasma processing interruption unit” must be shown or the feature canceled from the claims. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. "monitor unit", "monitor temperature input unit", "inner wall temperature setting unit", "cleaning unit", "plasma process interruption unit", "alarm unit", "monitor temperature inputting unit", "temperature setting unit", "plasma processing interruption unit". The claims contain at least one of the above elements which are not accurately discussed in the specification.

5. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 13 recites the limitation "said plasma processing interruption unit". There is insufficient antecedent basis for this limitation in the claim.

7. Claims 7, 26 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: What is/are the "seasoning operation".

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-16, and 20-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Katayama; Katsuo et al. (US 5,529,632 A). Katayama teaches a plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having an inside pressure (column 3, lines 23-35) thereof reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a specimen ("S"; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding a specimen ("S"; Figure 8); and a vacuum pumping unit ("evacuating apparatus"; column 6, lines 1-4); and a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40); wherein said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) includes an outer cylinder (11; Figure 8) having the capability of withstanding a reduced pressure (column 3, lines 23-35), and an inner cylinder (11a; Figure 8) arranged inside said outer cylinder (11; Figure 8); and wherein said monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40) enables monitoring of a temperature of said inner cylinder (11a; Figure 8) at least one of continuously and optionally at a time of processing of a specimen ("S"; Figure 8), as claimed by claim 1

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Katayama further teaches:

- i. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 1, wherein said processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting in advance (column 8; lines 13-23) a temperature of said inner cylinder (11a; Figure 8) corresponding to a plasma processing condition ("etch selectivity"; column 8; lines 13-23) for the specimen ("S"; Figure 8), and a monitor temperature input unit (21b; Figure 8), as claimed by claim 2
- ii. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having an inside pressure (column 3, lines 23-35) reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a specimen ("S"; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding a specimen ("S"; Figure 8); a vacuum pumping unit ("evacuating apparatus"; column 6, lines 1-4); and a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40); wherein said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) includes an outer cylinder (11; Figure 8) having the capability of withstanding a reduced pressure (column 3, lines 23-35) and an inner cylinder (11a; Figure 8) arranged inside said outer cylinder (11; Figure 8); and wherein said monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40) enables monitoring of a temperature of said inner cylinder

(11a; Figure 8) continuously for every one of a plurality of specimens (“S”; Figure 8) until processing of the plurality of specimens (“S”; Figure 8) is completed when the plurality of specimens (“S”; Figure 8) are processed one by one in a continuous manner, as claimed by claim 3 – Applicant’s “plurality of specimens” is a claim requirement of intended use. Further, it has been held that claim language that simply specifies an intended use or field of use for the invention generally will not limit the scope of a claim (Walter , 618 F.2d at 769, 205 USPQ at 409; MPEP 2106). Additionally, in apparatus claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim (In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto , 136 USPQ 458, 459 (CCPA 1963); MPEP2111.02).

- iii. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 3, wherein said processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting in advance (column 8; lines 13-23) a temperature of said inner cylinder (11a; Figure 8) corresponding to a plasma processing condition (“etch selectivity”; column 8; lines 13-23) for the specimen (“S”; Figure 8), and a monitor temperature input unit (21b; Figure 8), as claimed by claim 4 – Applicant’s “corresponding to a plasma processing condition (“etch selectivity”; column 8; lines 13-23) for the specimen” is a claim requirement of intended use. Further, it has been held that claim language that simply specifies an intended use or field of use for the invention

generally will not limit the scope of a claim (Walter , 618 F.2d at 769, 205 USPQ at 409; MPEP 2106). Additionally, in apparatus claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim (In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto , 136 USPQ 458, 459 (CCPA 1963); MPEP2111.02).

- iv. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having an inside pressure (column 3, lines 23-35) reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to the process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a specimen ("S"; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding a specimen ("S"; Figure 8); a vacuum pumping unit ("evacuating apparatus"; column 6, lines 1-4); and a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40); wherein said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) includes an outer cylinder (11; Figure 8) having the capability of withstanding a reduced pressure (column 3, lines 23-35) and an inner cylinder (11a; Figure 8) arranged inside said outer cylinder (11; Figure 8); wherein said monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40) enables monitoring of a temperature of said inner cylinder (11a; Figure 8) at a time of plasma processing for a specimen ("S"; Figure 8) so that a history of the monitoring temperature up to an interruption of the plasma processing for the

specimen ("S"; Figure 8) is inputted and checked, as claimed by claim 5 – Applicant's claim requirement of "so that a history of the monitoring temperature up to an interruption of the plasma processing for the specimen is inputted and checked" is a claim requirement of intended use of the pending apparatus claims. Further, it has been held that claim language that simply specifies an intended use or field of use for the invention generally will not limit the scope of a claim (Walter , 618 F.2d at 769, 205 USPQ at 409; MPEP 2106). Additionally, in apparatus claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim (In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto , 136 USPQ 458, 459 (CCPA 1963); MPEP2111.02).

- v. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 5, wherein said processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting in advance (column 8; lines 13-23) a temperature of said inner cylinder (11a; Figure 8) corresponding to a plasma processing condition ("etch selectivity"; column 8; lines 13-23) for the specimen ("S"; Figure 8), and a monitor temperature input unit (21b; Figure 8), as claimed by claim 6.
- vi. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) for plasma processing a specimen ("S"; Figure 8) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having an inside thereof

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pressure (column 3, lines 23-35) reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a specimen ("S"; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding the specimen ("S"; Figure 8); a vacuum pumping unit ("evacuating apparatus"; column 6, lines 1-4); and a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40); wherein said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) includes an outer cylinder (11; Figure 8) having the capability of withstanding a reduced pressure (column 3, lines 23-35), and an inner cylinder (11a; Figure 8) arranged inside said outer cylinder (11; Figure 8); wherein said monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40) enables monitoring of a temperature of said inner cylinder (11a; Figure 8) during a seasoning operation when the seasoning operation is carried out in said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40), as claimed by claim 7 – Applicant's claim requirement of "during a seasoning operation when the seasoning operation is carried out in said process chamber" is a claim requirement of intended use of the pending apparatus claims. Further, it has been held that claim language that simply specifies an intended use or field of use for the invention generally will not limit the scope of a claim (Walter, 618 F.2d at 769, 205 USPQ at 409; MPEP 2106). Additionally, in apparatus claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the

intended use, then it meets the claim (In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto, 136 USPQ 458, 459 (CCPA 1963); MPEP 2111.02).

- vii. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 7, wherein said processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting in advance (column 8; lines 13-23) a temperature of said inner cylinder (11a; Figure 8) corresponding to a plasma processing condition ("etch selectivity"; column 8; lines 13-23) for the specimen ("S"; Figure 8), and a monitor temperature input unit (21b; Figure 8), as claimed by claim 8
- viii. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having an inside pressure (column 3, lines 23-35) thereof reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a specimen ("S"; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding a specimen ("S"; Figure 8); a vacuum pumping unit ("evacuating apparatus"; column 6, lines 1-4); and a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40); wherein said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) includes an outer cylinder (11; Figure 8) having the capability of withstanding a reduced pressure (column 3, lines 23-35), and an inner cylinder (11a; Figure 8) arranged inside said outer cylinder (11; Figure 8); and wherein said monitor unit (21; Figure 8;

column 9, line 44 - column 10, line 40) enables monitoring a temperature of said inner cylinder (11a; Figure 8) one of before starting plasma processing of a specimen ("S"; Figure 8) and after finishing a cleaning operation ("etching", "ashing"; column 1; lines 5-10) of said plasma chamber, as claimed by claim 9 – Applicant's "enables monitoring a temperature of said inner cylinder one of before starting plasma processing of a specimen and after finishing a cleaning operation ("etching", "ashing"; column 1; lines 5-10) of said plasma chamber." Further, it has been held that claim language that simply specifies an intended use or field of use for the invention generally will not limit the scope of a claim (Walter , 618 F.2d at 769, 205 USPQ at 409; MPEP 2106). Additionally, in apparatus claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim (In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto , 136 USPQ 458, 459 (CCPA 1963); MPEP2111.02).

- ix. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 9, wherein said processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting in advance (column 8; lines 13-23) a temperature of said inner cylinder (11a; Figure 8) corresponding to a plasma processing condition ("etch selectivity"; column 8; lines 13-23) for the specimen ("S"; Figure 8), and a monitor temperature input unit (21b; Figure 8), as claimed by claim 10

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- x. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having an inside pressure (column 3, lines 23-35) thereof reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a specimen ("S"; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding a specimen ("S"; Figure 8); a vacuum pumping unit ("evacuating apparatus"; column 6, lines 1-4); a cleaning unit (19, 17, 14, 11; Figure 8; column 9, line 44 - column 10, line 40); and a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40); wherein said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) includes an outer cylinder (11; Figure 8) having the capability of withstanding a reduced pressure (column 3, lines 23-35), and an inner cylinder (11a; Figure 8) arranged inside said outer cylinder (11; Figure 8); wherein said cleaning unit (19, 17, 14, 11; Figure 8; column 9, line 44 - column 10, line 40) enables a cleaning operation ("etching", "ashing"; column 1; lines 5-10) of said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) under utilization of plasma for gas for cleaning at least one of before plasma processing of a specimen ("S"; Figure 8), during the plasma processing for a plurality of specimens ("S"; Figure 8) and after the plasma processing of the specimen ("S"; Figure 8); and wherein said a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40) enables monitoring of a temperature of said inner cylinder (11a; Figure 8) after a cleaning operation ("etching", "ashing"; column 1; lines 5-10) and before starting the plasma

processing for the specimen ("S"; Figure 8), as claimed by claim 11 – Applicant's "for a plurality of specimens" is a claim requirement of intended use. See above.

- xi. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 11, wherein said processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting in advance (column 8; lines 13-23) a temperature of said inner cylinder (11a; Figure 8) corresponding to a plasma processing condition ("etch selectivity"; column 8; lines 13-23) for the specimen ("S"; Figure 8), and a monitor temperature input unit (21b; Figure 8), as claimed by claim 12
- xii. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having an inside pressure (column 3, lines 23-35) thereof reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a specimen ("S"; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding a specimen ("S"; Figure 8); a vacuum pumping unit ("evacuating apparatus"; column 6, lines 1-4); a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40); and a plasma process interruption unit (19; Figure 8); wherein said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) includes an outer cylinder (11; Figure 8) having the capability of withstanding a reduced pressure (column 3, lines 23-35), and an inner cylinder (11a; Figure 8) arranged inside said outer cylinder (11; Figure

8); and wherein said monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40) enables monitoring of a temperature of said inner cylinder (11a; Figure 8); and wherein said plasma processing interruption unit enables interruption of plasma processing for the specimen ("S"; Figure 8) in response to the monitoring of the temperature of said inner cylinder (11a; Figure 8), as claimed by claim 13 – Applicant's claim requirement of "in response to the monitoring of the temperature of said inner cylinder" is a claim requirement of intended use. See above.

- xiii. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 13, wherein said processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting in advance (column 8; lines 13-23) a temperature of said inner cylinder (11a; Figure 8) corresponding to a plasma processing condition ("etch selectivity"; column 8; lines 13-23) for the specimen ("S"; Figure 8), and a monitor temperature input unit (21b; Figure 8), as claimed by claim 14
- xiv. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having an inside pressure (column 3, lines 23-35) thereof reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a specimen ("S"; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding a specimen ("S"; Figure 8); a vacuum pumping unit ("evacuating apparatus";

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column 6, lines 1-4); a cleaning unit (19, 17, 14, 11; Figure 8; column 9, line 44 - column 10, line 40); and a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40); wherein said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) includes an outer cylinder (11; Figure 8) having the capability of withstanding a reduced pressure (column 3, lines 23-35), and an inner cylinder (11a; Figure 8) arranged inside said outer cylinder (11; Figure 8), and wherein said cleaning unit (19, 17, 14, 11; Figure 8; column 9, line 44 - column 10, line 40) enables a cleaning operation (“etching”, “ashing”; column 1; lines 5-10) of said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) under utilization of a plasma for gas for cleaning during processing of a plurality of specimens (“S”; Figure 8) when the plural specimens (“S”; Figure 8) are processed one by one in a continuous manner; and wherein said monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40) enables monitoring of a temperature of said inner cylinder (11a; Figure 8) after the cleaning operation (“etching”, “ashing”; column 1; lines 5-10) and before starting the plasma processing for the specimen (“S”; Figure 8), as claimed by claim 15. Applicant’s claim requirement of “when the plural specimens are processed one by one in a continuous manner”, is a claim requirement of intended use. See above.

- xv. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 15, wherein said processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting in advance (column 8; lines 13-23) to input a temperature of the inner cylinder (11a; Figure 8) corresponding to a plasma processing

- condition (“etch selectivity”; column 8; lines 13-23) for a specimen (“S”; Figure 8), and a monitor temperature input unit (21b; Figure 8), as claimed by claim 16
- xvi. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having an inside pressure (column 3, lines 23-35) thereof reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a specimen (“S”; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding a specimen (“S”; Figure 8); a vacuum pumping unit (“evacuating apparatus”; column 6, lines 1-4); and a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40); wherein said monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40) enables monitoring of a temperature of an inner wall of said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) at least one of continuously and optionally at a time of processing a specimen (“S”; Figure 8), as claimed by claim 20. Applicant’s claim requirement of “at least one of continuously and optionally at a time of processing a specimen” is a claim requirement of intended use. See above.
- xvii. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 20, wherein said processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting in advance (column 8; lines 13-23) a temperature of said inner wall in response to a plasma processing condition (“etch selectivity”; column 8;

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lines 13-23) for the specimen ("S"; Figure 8), and a monitor temperature inputting unit (21b; Figure 8), as claimed by claim 21

- xviii. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having an inside pressure (column 3, lines 23-35) thereof reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a specimen ("S"; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding a specimen ("S"; Figure 8); a vacuum pumping unit ("evacuating apparatus"; column 6, lines 1-4); and a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40); wherein said monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40) enables monitoring of a temperature of an inner wall of said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) continuously for every one of a plurality of specimens ("S"; Figure 8) until the processing of plurality of specimen ("S"; Figure 8) is completed when the plurality of specimen ("S"; Figure 8) are processed one by one in a continuous manner, as claimed by claim 22. Applicant's claim requirement of "continuously for every one of a plurality of specimens until the processing of plurality of specimen is completed when the plurality of specimen are processed one by one in a continuous manner" is a claim requirement of intended use of the pending Apparatus claims.

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- xix. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 22, wherein said processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting in advance (column 8; lines 13-23) a temperature of the inner cylinder (11a; Figure 8) in response to a plasma processing condition ("etch selectivity"; column 8; lines 13-23) for the specimen ("S"; Figure 8), and a monitor temperature inputting unit (21b; Figure 8), as claimed by claim 23
- xx. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having an inside pressure (column 3, lines 23-35) thereof reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a specimen ("S"; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding a specimen ("S"; Figure 8); a vacuum pumping unit ("evacuating apparatus"; column 6, lines 1-4); and a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40); wherein said monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40) enables monitoring of a temperature of an inner wall of said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) at a time of plasma processing of the specimen ("S"; Figure 8) so that a history in which the monitor temperature up to an interruption of the plasma processing for the specimen ("S"; Figure 8) is inputted and checked, as claimed by claim 24. Applicant's claim requirement of "at a time of plasma processing of

the specimen so that a history in which the monitor temperature up to an interruption of the plasma processing for the specimen is inputted and checked” is a claim requirement of intended use of the pending apparatus claims. Further, it has been held that claim language that simply specifies an intended use or field of use for the invention generally will not limit the scope of a claim (Walter , 618 F.2d at 769, 205 USPQ at 409; MPEP 2106). Additionally, in apparatus claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim (In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto , 136 USPQ 458, 459 (CCPA 1963); MPEP 2111.02).

- xxi. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 24, wherein said processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting in advance (column 8; lines 13-23) a temperature of the inner wall in response to a plasma processing condition (“etch selectivity”; column 8; lines 13-23) for the specimen (“S”; Figure 8), and a monitor temperature inputting unit (21b; Figure 8), as claimed by claim 25
- xxii. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) for performing a plasma processing of a specimen (“S”; Figure 8) by a plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having

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an inside pressure (column 3, lines 23-35) thereof reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a specimen ("S"; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding a specimen ("S"; Figure 8); a vacuum pumping unit ("evacuating apparatus"; column 6, lines 1-4); and a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40); wherein said monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40) enables monitoring of a temperature of an inner wall of said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) during a seasoning operation ("ethcing", "ashing"; column 1; lines 5-10) when the seasoning operation ("ethcing", "ashing"; column 1; lines 5-10) is performed in said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40), as claimed by claim 26. Applicant's claim requirement of "during a seasoning operation ("ethcing", "ashing"; column 1; lines 5-10) when the seasoning operation ("ethcing", "ashing"; column 1; lines 5-10) is performed in said process chamber" is a claim requirement of intended use. Further, it has been held that claim language that simply specifies an intended use or field of use for the invention generally will not limit the scope of a claim (Walter , 618 F.2d at 769, 205 USPQ at 409; MPEP 2106). Additionally, in apparatus claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim (In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto , 136 USPQ 458, 459 (CCPA 1963); MPEP 2111.02).

- xxiii. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 26, wherein said processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting in advance (column 8; lines 13-23) a temperature of the inner wall in response to a plasma processing condition ("etch selectivity"; column 8; lines 13-23) for the specimen ("S"; Figure 8), and a monitor temperature inputting unit (21b; Figure 8), as claimed by claim 27
- xxiv. 28. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having an inside pressure (column 3, lines 23-35) thereof reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a specimen ("S"; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding a specimen ("S"; Figure 8); a vacuum pumping unit ("evacuating apparatus"; column 6, lines 1-4); and a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40); wherein said monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40) enables monitoring of a temperature of an inner wall of said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) one of before starting plasma processing of a specimen ("S"; Figure 8) and after finishing a cleaning operation ("ethcing", "ashing"; column 1; lines 5-10), as claimed by claim 28. Applicant's claim requirement of "one of before starting plasma processing of a specimen and after

finishing a cleaning operation” of the pending apparatus claims is a claim requirement of intended use. Further, it has been held that claim language that simply specifies an intended use or field of use for the invention generally will not limit the scope of a claim (Walter , 618 F.2d at 769, 205 USPQ at 409; MPEP 2106). Additionally, in apparatus claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim (In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto , 136 USPQ 458, 459 (CCPA 1963); MPEP2111.02).

xxv. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 28, wherein said processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting in advance (column 8; lines 13-23) a temperature of the inner wall in response to a plasma processing condition (“etch selectivity”; column 8; lines 13-23) for the specimen (“S”; Figure 8), and a monitor temperature inputting unit (21b; Figure 8), as claimed by claim 29

xxvi. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having an inside pressure (column 3, lines 23-35) thereof reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a

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specimen ("S"; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding a specimen ("S"; Figure 8); a vacuum pumping unit ("evacuating apparatus"; column 6, lines 1-4); a cleaning unit (19, 17, 14, 11; Figure 8; column 9, line 44 - column 10, line 40); and a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40); wherein said cleaning unit (19, 17, 14, 11; Figure 8; column 9, line 44 - column 10, line 40) enables a cleaning operation ("etching", "ashing"; column 1; lines 5-10) of said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) under utilization of a plasma for gas for cleaning at least one of before plasma processing for a specimen ("S"; Figure 8), during the plasma processing for a plurality of specimens ("S"; Figure 8) and after the plasma processing for the specimen ("S"; Figure 8); and wherein said monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40) enables monitoring of a temperature of an inner wall of said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) after the cleaning operation ("etching", "ashing"; column 1; lines 5-10) and before starting the plasma processing for the specimen ("S"; Figure 8), as claimed by claim 30. Applicant's claim requirements of "for gas for cleaning at least one of before plasma processing for a specimen, during the plasma processing for a plurality of specimens and after the plasma processing for the specimen" and "after the cleaning operation and before starting the plasma processing for the specimen" are claim requirements of intended use. Further, it has been held that claim language that simply specifies an intended use or field of use for the invention generally will not limit the scope of a claim (Walter , 618 F.2d at 769, 205 USPQ at 409; MPEP 2106). Additionally, in apparatus claims, intended use must result in a structural difference between the

claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim (In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto, 136 USPQ 458, 459 (CCPA 1963); MPEP 2111.02).

- xxvii. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 30, wherein said processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting in advance (column 8; lines 13-23) a temperature of the inner cylinder (11a; Figure 8) in response to a plasma processing condition ("etch selectivity"; column 8; lines 13-23) for the specimen ("S"; Figure 8), and a monitor temperature inputting unit (21b; Figure 8), as claimed by claim 31
- xxviii. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having an inside pressure (column 3, lines 23-35) thereof reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a specimen ("S"; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding a specimen ("S"; Figure 8); a vacuum pumping unit ("evacuating apparatus"; column 6, lines 1-4); a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40); and a plasma processing interruption unit (21b; Figure 8); wherein said monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40) enables monitoring of a

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- temperature of an inner wall of said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); and wherein said plasma processing interruption unit (21b; Figure 8) enables interruption of plasma processing for the specimen ("S"; Figure 8) in response to the monitored inner wall temperature, as claimed by claim 32
- xxix. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 32, wherein said processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting to input a temperature of the inner wall in response to a plasma processing condition ("etch selectivity"; column 8; lines 13-23) for the specimen ("S"; Figure 8), and a monitor temperature inputting unit (21b; Figure 8), as claimed by claim 33
- xxx. 34. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having an inside pressure (column 3, lines 23-35) thereof reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a specimen ("S"; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding a specimen ("S"; Figure 8); a vacuum pumping unit ("evacuating apparatus"; column 6, lines 1-4); a cleaning unit (19, 17, 14, 11; Figure 8; column 9, line 44 - column 10, line 40); and a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40); wherein said cleaning unit (19, 17, 14, 11; Figure 8; column 9, line 44 - column

10, line 40) enables a cleaning operation (“ethcing”, “ashing”; column 1; lines 5-10) of said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) under utilization of plasma of gas for cleaning during processing of a plurality of specimens (“S”; Figure 8) when the plurality of specimens (“S”; Figure 8) are processed one by one in a continuous manner; and wherein said monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40) enables monitoring of a temperature of an inner wall of said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) after the cleaning operation (“ethcing”, “ashing”; column 1; lines 5-10) and before starting the plasma processing for the specimen (“S”; Figure 8), as claimed by claim 34. Applicant’s claim requirement of “the plurality of specimens are processed one by one in a continuous manner” and “after the cleaning operation and before starting the plasma processing for the specimen” are claim requirements of intended use. See above.

- xxxi. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 34, wherein said processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting in advance (column 8; lines 13-23) a temperature of the inner wall in response to a plasma processing condition (“etch selectivity”; column 8; lines 13-23) for the specimen (“S”; Figure 8), and a monitor temperature inputting unit (21b; Figure 8), as claimed by claim 35

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 17-19, and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katayama; Katsuo et al. (US 5,529,632 A) in view of Zaber; Robert J. (US 4,890,573 A).

Katayama is discussed above. Katayama further teaches:

- i. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having an inside pressure (column 3, lines 23-35) thereof reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a specimen ("S"; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding a specimen ("S"; Figure 8); a vacuum pumping unit ("evacuating apparatus"; column 6, lines 1-4); wherein said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) includes an outer cylinder (11; Figure 8) having the capability of withstanding a reduced pressure (column 3, lines 23-35), and an inner cylinder (11a; Figure 8) arranged inside said outer cylinder (11; Figure 8) – claim 17
- ii. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 17, further comprising a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40) for monitoring temperature of said inner cylinder (11a; Figure 8) and providing an output of the detected monitoring temperature, as claimed by claim 18

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- iii. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 18, wherein said processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting in advance (column 8; lines 13-23) a temperature of the inner cylinder (11a; Figure 8) corresponding to a plasma processing condition ("etch selectivity"; column 8; lines 13-23) for a specimen ("S"; Figure 8), and a monitor temperature input unit (21b; Figure 8), as claimed by claim 19
- iv. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) comprising: a plasma generating unit (19, 17, 14; Figure 8; column 9, line 44 - column 10, line 40); a process chamber (11; Figure 8; column 9, line 44 - column 10, line 40) capable of having an inside pressure (column 3, lines 23-35) thereof reduced; a process gas supply unit (16b; Figure 8; column 9, line 44 - column 10, line 40) for supplying gas to said process chamber (11; Figure 8; column 9, line 44 - column 10, line 40); a specimen ("S"; Figure 8) table (15a; Figure 8; column 9, line 44 - column 10, line 40) for holding a specimen ("S"; Figure 8); a vacuum pumping unit ("evacuating apparatus"; column 6, lines 1-4) – claim 36
- v. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 36, further comprising a monitor unit (21; Figure 8; column 9, line 44 - column 10, line 40) for monitoring temperature of the inner wall and providing an output of the detected monitoring temperature, as claimed by claim 37
- vi. A plasma (Title) processing apparatus (Figure 8; column 9, line 44 - column 10, line 40) according to claim 37, wherein said processing apparatus (Figure 8; column 9, line 44 -

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column 10, line 40) further comprises an inner wall (23; Figure 8) temperature setting unit (21b,c; Figure 8) for setting in advance (column 8; lines 13-23) a temperature of the inner wall in response to a plasma processing condition ("etch selectivity"; column 8; lines 13-23) for the specimen ("S"; Figure 8), and a monitor temperature inputting unit (21b; Figure 8), as claimed by claim 38

Katayama does not teach an alarm unit and wherein said alarm unit enables generation of an alarm in response to a detected monitoring temperature for Katayama's inner cylinder (11a; Figure 8), as claimed by claim 17, 36

Zaber teaches a heat treating apparatus (Figure 2; column 2, lines 9-34) an alarm unit (94; Figure 2) and wherein said alarm unit (94; Figure 2) enables generation of an alarm in response to a detected monitoring temperature for Zaber's inner cylinder (40; Figure 2; abstract, column 2; lines 35-53), as claimed by claim 17, 36.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add Zaber's alarm unit (94; Figure 2) to Katayama's temperature control system detailed above.

Motivation to add Zaber's alarm unit (94; Figure 2) to Katayama's temperature control system detailed above is for indicating a "high-temperature" or "low-temperature" signal during heat processing as taught by Zaber (40; Figure 2; abstract, column 2; lines 35-53).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

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US 5474648 A

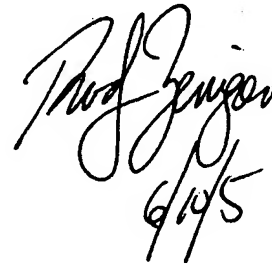
US 4812201 A

US 4430959 A

JP 02221368 A

JP 63115074 A

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Rudy Zervigon whose telephone number is (571) 272.1442. The examiner can normally be reached on a Monday through Thursday schedule from 8am through 7pm. The official fax phone number for the 1763 art unit is (703) 872-9306. Any Inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Chemical and Materials Engineering art unit receptionist at (571) 272-1700. If the examiner can not be reached please contact the examiner's supervisor, Parviz Hassanzadeh, at (571) 272-1435.



Rudy Zervigon
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